2000 Strategic Resources Plan

Seattle City Light
September, 2000

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Strategic Resource Assessment

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Seattle City Light has completed an extensive analysis of options to best meets its customers' present and future electricity needs while remaining low cost, reliable and environmentally responsible. This is more challenging as gas and electricity prices on the market have risen and the market becomes increasingly volatile due to forces external to the basics of supply and demand. Thus City Light's strategy is to reduce its reliance on the market and to conserve, invest in, or contract for resources to meet its customers' base load over the next ten years with resources that reflect its commitment to reliability, cost containment and the environmental values of Seattle's ratepayers.

1. What Load should we Plan to Serve?

Although we have developed a range of load forecasts for the next 10 years, the base case assumes load growth of roughly 1.5% annually for a total of an additional 200 average megawatts (aMW) above our current load of roughly 1150 aMW. Higher load growth is likely in our robust economy - - particularly with the rapidly changing information technologies that have emerged with their significant appetites for electricity. City Light is explicitly planning for the base load growth projection over the 10 year period and recommends that special contracts be developed to meet the power and distribution system demands of new large load customers.

2. What Resources will we Need Over the Next 10+ Years?

In addition to load growth in Seattle City Light's service territory, the Department needs to replace the power that was previously generated by the Centralia Coal Plant (81.5 aMW) and other existing resources, the power that the utility currently purchases from the Bonneville Power Administration (195 aMW), and the power that is currently purchased from the market. Current high prices, projections that high prices will continue into the future, and market volatility make strategies to reduce significantly our dependence on the market quite attractive.

For reasons summarized above, the gap or difference between the utility's firm load and firm resources is projected to grow from 470 aMW in 2002 to roughly 700 aMW in 2011. City Light's recommended strategy to meet this customer demand for electricity is to:

- Meet base load growth consistent with the City Council's Earth Day Resolution. This directs City Light to meet load growth with cost-effective energy efficiency and renewable resources to the greatest extent possible, and mitigate any greenhouse gas emissions that are a result of that load growth. Consistent with this policy direction, City Light will:

* Double the current conservation goal over the next 10 year period to acquire roughly 100 aMW of cost effective conservation and review and pilot new approaches to load management;

* Strive to acquire roughly 100 aMW of renewable resources over the 10-year period.

- Sign a new contract with the Bonneville Power Administration effective October 1, 2001. Seattle City Light will contract for its full entitlement (estimated in the range of 400-500 aMW) in a combination of two different Bonneville products: a "Slice" or percentage share of the output of the BPA system; and a "Shaped Block" product delivered to the City Light system in the months that it is most needed to meet the utility's load/resource deficit.

- Contract for roughly 100 MW of output from a combustion turbine as a hedge against adverse weather and water conditions and extraordinary load growth and to meet daily peak demands. Any greenhouse gas emissions produced in operation of the facility will be fully mitigated.

3. Next Steps

We will discuss these recommendations with the Seattle City Council and request further policy direction from them. At a minimum, we recommend:

- Finalization of an Addendum to the 1996/97 Environmental Impact Statement for the previous Strategic Resources Assessment and action by the City Council on the new Bonneville Power Administration contract.

- Parallel evaluation of requests for renewable resources and combustion turbine proposals beginning in September.

- Development of clear strategies to meet the doubled conservation goal over the 10 year period and pilot new load management strategies with customers.

- Development of greenhouse gas mitigation policies and strategies for review and action by the City Council in 2001.

- Review and recommendation of changes to the utility's financial and rate-setting policies to help the utility better manage the wide swings in financial performance that can and will occur from year to year.

- Maintenance of the value and integrity of our existing assets.

For further information, please contact Nancy Glaser, Director of Strategic Planning at 684-3117.

2000 STRATEGIC RESOURCE ASSESSMENT

I. The Key Questions the Strategic Resource Assessment Set Out to Address

The fundamental question addressed by the 2000 Strategic Resource Assessment is "How does Seattle City Light best meet its customers' present and future electricity needs while remaining low cost, reliable and environmentally responsible?" We have broken that question into three components:

A. What loads should we plan to serve?

B. What resources should we acquire to meet that load over the next 10+ year period?

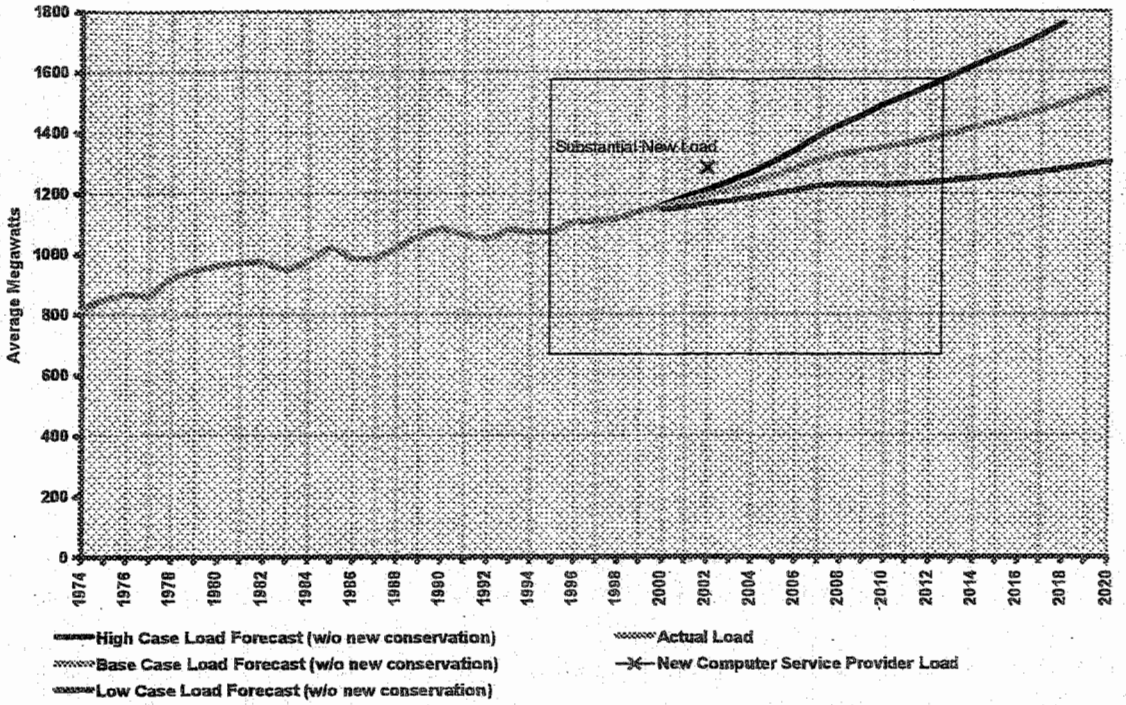
C. Should we re-think our rate-setting and financial policies?

As we set out to answer these questions, we clearly identified some additional future work program items necessary to carry out the policy direction embodied in the City's Earth Day Resolution and to position ourselves for the second decade of this 21st century. (An overview of the Seattle City Council's policy guidance on resource development is included in Appendix 1.)

II. What Load should we Plan to Serve?

City Light has projected a low, medium and high demand forecast as summarized in the graph below. The graph shows the projections over the next 20-year period if no additional conservation is acquired in the service territory. This forecast is shown in relation to historical "weather adjusted" demand on our City Light system. It also indicates with the "X" an increment of "high technology" load that may enter Seattle City Light's service territory in the near future. There are several loads such as these that would place considerable stress both on the distribution and power supply capabilities of our existing system.

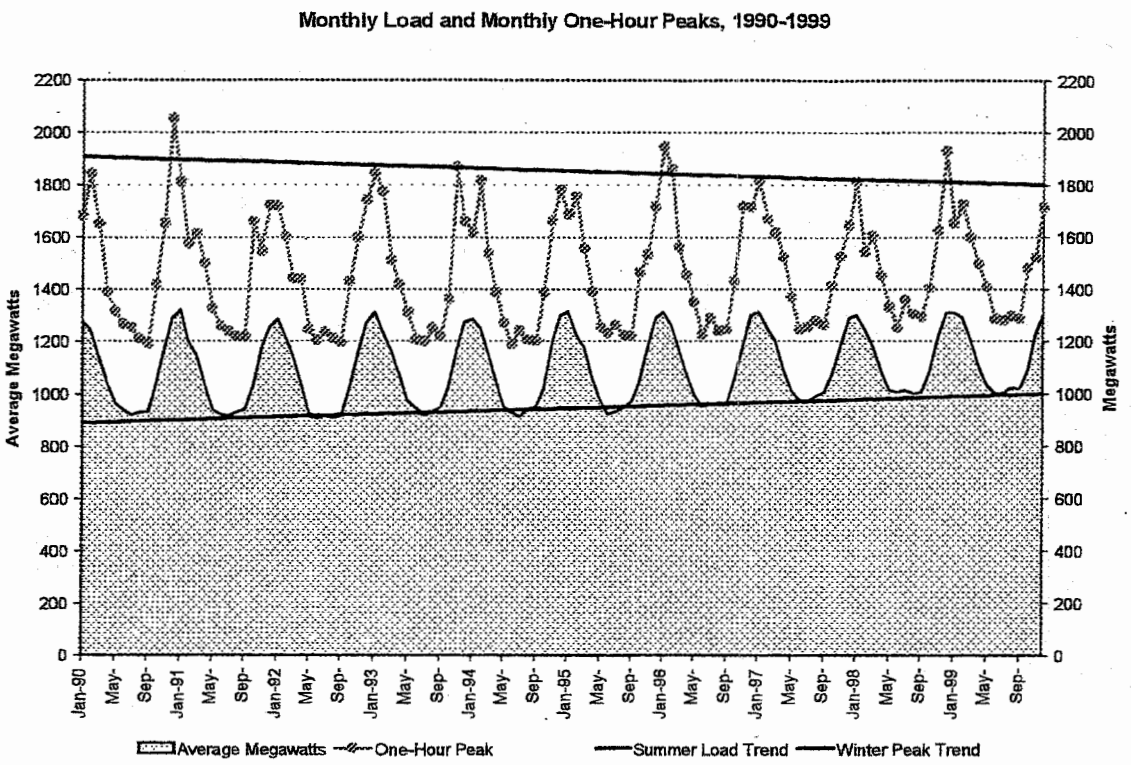
Low, Base Case and High Load Growth Projections



The average annual rate of growth in the base load forecast is roughly 1.5%/year over the next 20 years. At this rate system load is expected to increase by 200 aMW over the next 10 years. For the remainder of this discussion, we will focus attention primarily on our resource needs for the period from 2001 through 2011.

Load is expected to continue to grow faster during the summer than in winter because the commercial class (with its considerable air conditioning load) is growing at a faster rate than the residential and industrial classes. Thus the difference between our summer and winter peaks has narrowed as can be seen in the chart that follows:

Historical Seasonal Load Shapes



It is important to keep in mind the considerable variation in load shape both across months, by season and by time of day as we plan for resources to meet customer needs. Although we will be focusing on the average annual system needs in much of the discussion that follows, planning and acquiring resources only to meet average annual or firm annual needs can leave our ability to meet load at significant risk. We will return to this in the discussion of the role of a combustion turbine or other dispatchable resource as one component of City Light's resource portfolio.

In conclusion, City Light recommends planning around its base-load forecast, recognizing that higher growth is likely in the robust economy and with the emerging electricity demands of the information and bio-technology industries. To complement the planning to meet the base-load forecast, we plan to acquire resources on an as-needed basis for new large load customers and negotiate separate rate contracts with them to ensure that existing ratepayers are held harmless from the new large load's entrance into the service territory. (A more extensive discussion of City Light's load forecast is included in Appendix 2.)

III. City Council Direction in the 1996 Strategic Resource Plan

The last Strategic Resource Assessment was completed in 1996. The Council direction at that time was to:

- Rely on the market and reduce purchases from the Bonneville Power Administration to 195 aMW - - less than our entitlement because Bonneville was projected to be considerably more expensive than market electricity.

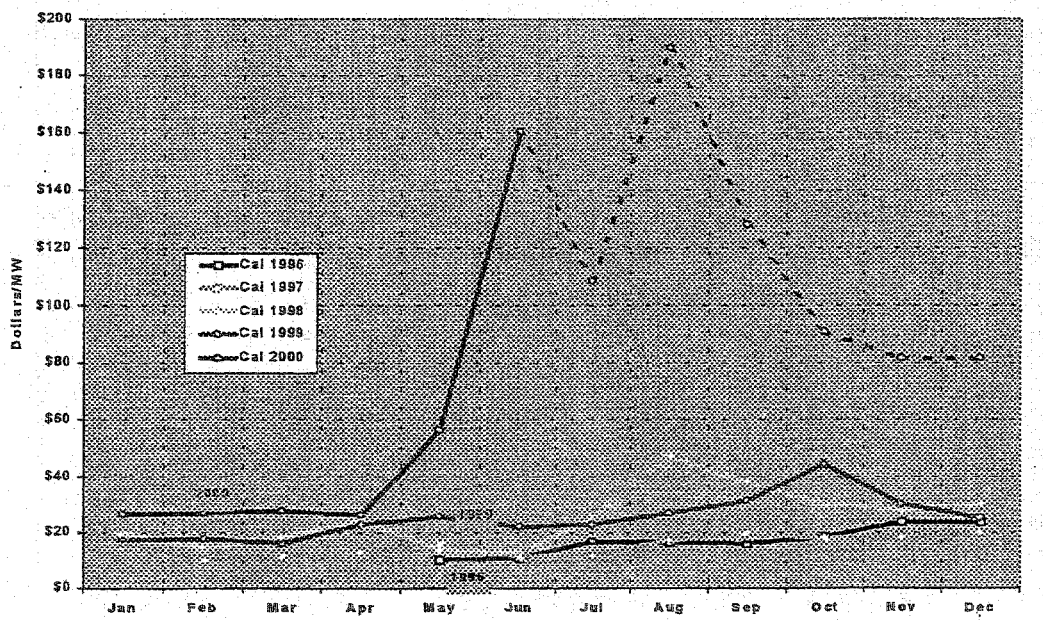
- Increase City Light's financial support for conservation and set an annual goal of 6 aMW through 2002.

- Contract for renewables that are cost effective when environmental externalities are considered; and

- Continue to evaluate the merit of the addition of a combustion turbine or other dispatchable resource to City Light's resource portfolio.

That strategy proved very effective for several years. With the sale of the Centralia plant earlier this year and the significant price escalation and price volatility that has emerged in the electricity markets, this reliance on the market is exposing City Light and its customer owners to significant financial risks in both the near and longer-term. This year, a year of close to normal water conditions, it is estimated that increases in market prices for electricity combined with unusual stream-flows will result in roughly a $33 million loss over what was anticipated when rates were set a year ago. The graph below indicates how prices in 1999 have escalated relative to recent experience.

Electricity Markets
Mid-Columbia Monthly On-Peak Prices
Indices 5/96-/21/00; Forward 7/22/00-12/00



Several circumstances combined this year to drive up the prices for electricity. In general, year 2000 West Coast electricity prices are much higher overall than those which prevailed in the 1995 –1999 timeframe for several key reasons:

- Customer loads (including the development of many high technology new large customer loads in California) have resulted in 3%/year regional demand growth at the same time little new generation has been built.

- Restructuring has created an uncertain backdrop which has increased risk and discouraged developers from investing in new generation and transmission.

- Natural gas prices are roughly twice as high as last year as many of the supplies that historically were marketed solely in the West are being moved to mid-U.S. markets.

In addition to the price levels skyrocketing above previously experienced levels, the market price volatility is unprecedented. This year's price spikes have been exacerbated by: 1) an earlier than anticipated and extended Southwest heat wave at the same time many generators were shut down for planned maintenance; 2) tight supply and demand throughout the West; 3) unexpected forced outages; 4) loss of generation due to stream flows being altered to better support fish obligations; and 5) failure of restructuring to result in a competitive marketplace.

Although some of these ingredients are expected to change in the future, it is not clear that they will work themselves out quickly. We continue to predict that we will return to market prices for electricity that reflect the full capital and operating costs of a combined cycle combustion turbine, it may take some time for the market to return to that level. Thus, the recommendations that emerge from the 2000 Strategic Resource Assessment tend to reduce City Light's reliance on the power market.

IV. What Long-term Forecasts of Electricity and Natural Gas Prices should be Used to Evaluate Resource Investment Choices?

If City Light wants to reduce its exposure to the vagaries of market prices and supply availability, it must evaluate its resource investment choices against one or more set of market price assumptions. Beginning in mid-1998, West Coast electric prices have been much higher in summer and early fall than in past years. This reflects many factors: the economic recovery in California; restructuring of the electricity industry there; the transmission open access policy; little new generation; rising fuel prices; and additional natural gas pipeline capacity from Canada to other parts of the U.S. (ending a price-break for the West). This new seasonal pattern of prices is much different from traditional price patterns when the Northwest was a more isolated market. Then prices were highest in winter months (when loads were highest and stream flows low) and lowest in summer when in-region demand was low and hydro output peaked from the runoff of snowmelt.

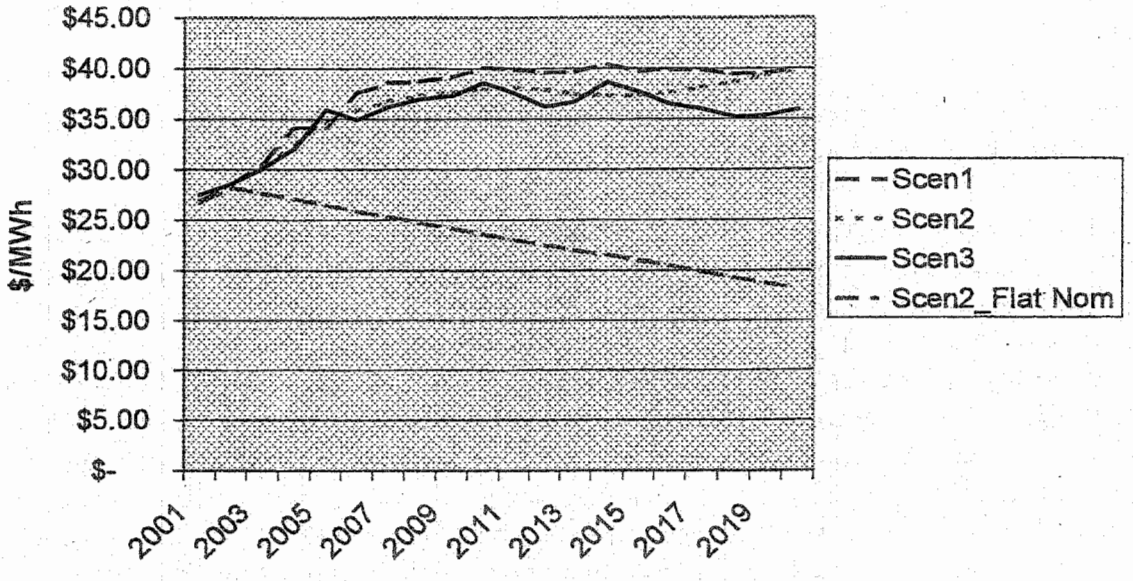
Electricity price forecasts for the Pacific Northwest have been based on the probability distribution of water conditions affecting supply and therefore prices: the wetter the year the lower prices (especially in early summer); and the drier the year the higher. Load growth assumptions are also important in forecasting electric prices (especially the price-responsiveness of load growth as the Northwest learned the hard way in the 1970's). When loads exceed resources, the fixed and variable costs of the marginal resource assumed to be added determines the market price. The most likely new resource is a combined-cycle natural gas combustion turbine, which has a relatively low capital cost but can have high operating costs if natural gas prices are high.

City Light consulted with several sources to create three price scenarios for evaluating resource decisions as summarized in the table below. Because all of the forecasts concluded prices would rise over the next five years from about $25/MWh to $35-40/MWh, City Light added a fourth scenario for a sensitivity analysis in case prices did not rise by freezing the Scenario 2 price for 2002 in nominal dollars through 2020. The four price forecasts are shown in the graph below. (More detail on the forecasts of electricity and gas prices and environmental externalities is included in Appendix 4.

City Light did not analyze the resource choices against higher prices such as those seen this summer. It is too soon to tell if these are an aberration, or the beginning of a shift in the fundamentals of electric prices. However, any resource investment that compares favorably against these more moderate price increases would look even better against higher prices.

Forecasts of Future Market Prices

Annual Average Electricity Prices in 1999 dollars

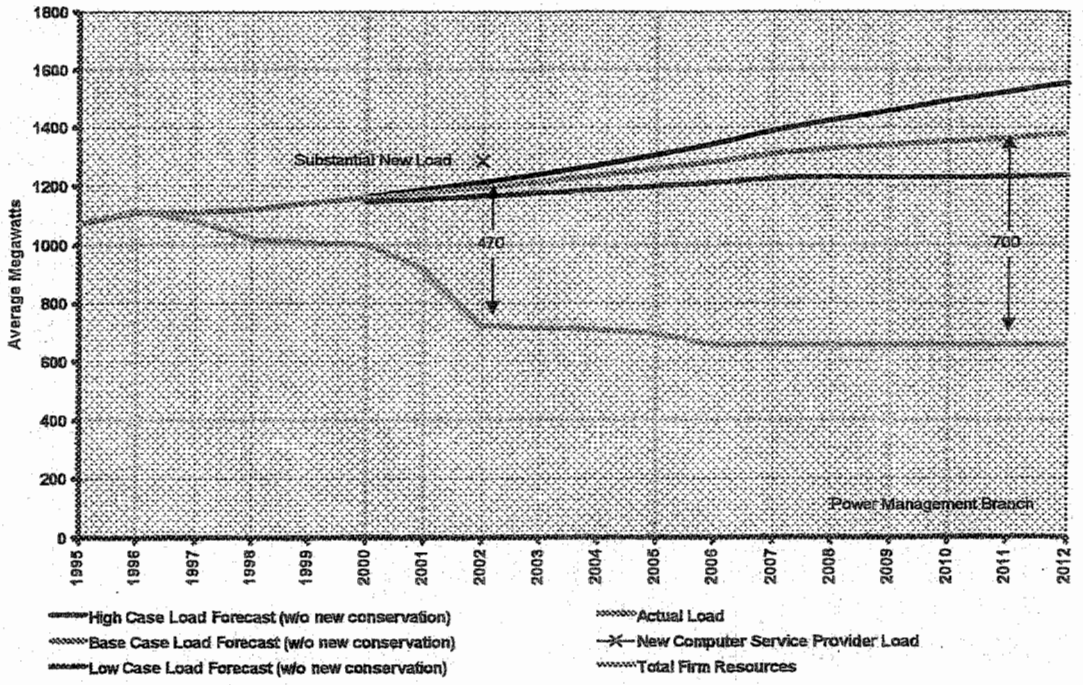


MARKET PRICE SCENARIO PRICE ASSUMPTIONS			
ASSUMPTIONS	SCENARIO I	SCENARIO II	SCENARIO III
Natural Gas Prices	**Energy Information Administration (EIA) Forecast** – • High gas forecast	**Econometric Model** Internal SCL forecast of regional prices based on Energy Information Administration's long-term forecast and forward market prices for 2001-2002 at Henry Hub • Middle range gas forecast	**NWPPC Forecast** – About 0.5% real escalation over forecast horizon • Low range gas forecast
Combustion Turbine Costs	**California Energy Commission Assumptions** • $600/kw • 60/40 debt/equity • 14% return on equity • 8.5% debt interest • 15 year amortization • 6,800 BTU/KWh • $10/KW annual fixed O&M • Tax – 35%	**SCL Assumptions** • 2001-2006 based on BPA rate case that uses Clark PUD's River Road project's actual capital costs adjusted for location. • After 2006 similar to Energy Information Administration's assumptions of efficiency improvement from 6,900 to 6,300 BTU/KWh	**NWPPC Assumptions** • $583/kw • Subsidized by RTO @ $100/kw up to 3000 MW starting in 2005 only for NW (this is SCL assumption) • 70/30 debt/equity; • 17.3% return on equity • 8.7% debt interest • Tax – 34%
Scheduled Resource Additions	New resources already underway (about 8,000 MW) finished at remaining cost. Additional 1,261 MW added to on-line resources in Aurora @ no additional cost	No explicit assumptions. The general trend captured the economics of new resources in large cycle of about 6 years in each phase.	Same as Scenario I
Tech. Change	**NWPPC Assumption** 0.5%/yr annual improvement over forecast horizon	**Energy Information Administration Assumption** Additional doubling every 5 years for each new technology	**SCL Assumption** Reaches 90% of limit by 2010
Load Forecasts	**BPA Forecasts from latest rate case** NW - 1.52%/yr Canada - 1.36% Rocky Mtn – 1.74% Arizona-New Mexico – 1.82% Calif – 1.06%	Steady growth of about 1.5%/year, compared to average of 1.4% for the US.	**WSCC Forecast for NW** Same as Scenario 1 except 0.9% for NW

V. Criteria Used to Decide Which Resources Make Sense for City Light and its Customers.

There are five key criteria the utility used in evaluating resource portfolios to fill the firm load minus firm resource gap that can be seen in the graph below. This gap increases from 470 aMW in 2002 to 700 aMW in the year 2011. Detailed information on City Light's existing resources is included in Appendix 3.

Long-term Load Growth
vs Firm Resources with no BPA



The first criteria is economic in nature. All potential resource options were measured in relation to the cost of acquiring electricity in the market, City Light's marginal resource at present. In addition, the City Council directed City Light as early as 1992 to include costs to the environment in the cost effectiveness evaluation of resources.

The second criteria is reliability. How consistently can City Light count on the output of a particular resource at specific times of year/day and week and in certain water conditions? Also, how carefully can the outages of a particular resource be managed?

The third criteria used in the evaluation of resource portfolios was financial uncertainty in relation to economic value. Financial uncertainty, particularly within any one year, is not a problem per se. However, it has been important for us to understand more clearly the financial uncertainties

we may have to manage differently if we are to realize the significant value of a variety of resource options before us.

The fourth criteria City Light considered in evaluating resources was political in nature - particularly as it relates to maintaining the value of the Bonneville Power Administration asset in the Northwest Region. The new Bonneville Power Administration "slice of the system" product is seen as a model for future regionalization of Bonneville. It has enhanced value to us as we and the others in the Northwest position ourselves for the national debate about the future of Bonneville.

One final criteria is that of environmental priorities. Certainly operating hydroelectric resources in a "fish-first" fashion has been, and will continue to be, a priority. In addition, City Light is proud to operate, and will continue to operate, its total system in a low cost fashion, consistent with its strong reliability and environmental values as outlined in City Council resolutions. (See Appendix 1 for more information.)

VI. The Earth Day Resolution and Mitigation of Greenhouse Gasses

The most recent statement of key environmental values is embodied in the Earth Day Resolution passed by the Seattle City Council earlier this year. It directs City Light to establish a long-range goal of meeting the electric needs of Seattle with no net greenhouse gas emissions. And, immediately, City Light will meet load growth by using cost-effective energy efficiency and renewable resources to the greatest extent possible and mitigate greenhouse gas emissions that are a result of that load growth.

VII. The City's First Priority Resource: Cost-effective Conservation.

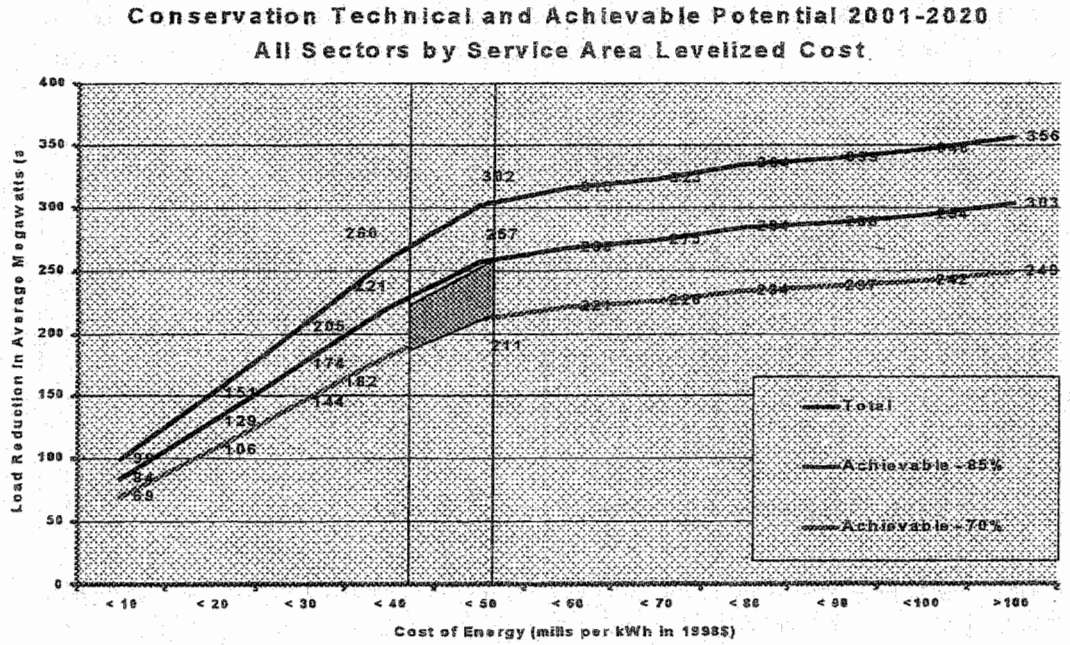
City Light has been a regional and national leader in conservation for several decades. The first programs were implemented on a widespread scale in the early 1980's. In 1992, City Light developed the *Conservation Implementation Plan: 1993-2003* (1992 Plan). The 1992 Plan detailed the strategies City Light would use with the strong financial support of the Bonneville Power Administration to meet the City of Seattle's 10-year electrical load growth with cost-effective conservation. This translated into a goal of acquiring 100 aMW of cost-effective conservation by the year 2003, or an annual acquisition rate of 10 aMW.

Beginning in 1995, significant changes were evident in the utility's environment. Forecasted energy prices were much lower in 1995 than those projected in 1992. A deregulated, competitive business environment was evolving with unknown and uncertain impacts. And, in the face of that environment, Bonneville essentially eliminated conservation funding in order to cut costs to remain competitive.

When others stepped back from investments in conservation in the mid-1990's, City Light was visionary in keeping its conservation infrastructure and program delivery system in place, recognizing the long-term value of the conservation resource. City Light significantly increased its financial support of conservation as it reduced somewhat its pace of conservation acquisition. Because of this, City Light is consistently exceeding its annual targets of 6 aMW of conservation.

In order to assess the conservation potential in the City Light service territory for the future, City Light worked with the staff of the Northwest Power Planning Council to estimate the technical conservation potential that could be identified over the next 20-year period. That technical potential is the full amount of conservation that could be achieved at various costs (measured across the horizontal graph) if each and every conservation investment were made and efficiently used fully over the 20-year period. This technical potential is shown in the top line of the graph below.

Conservation
SCL's Top Priority Resource

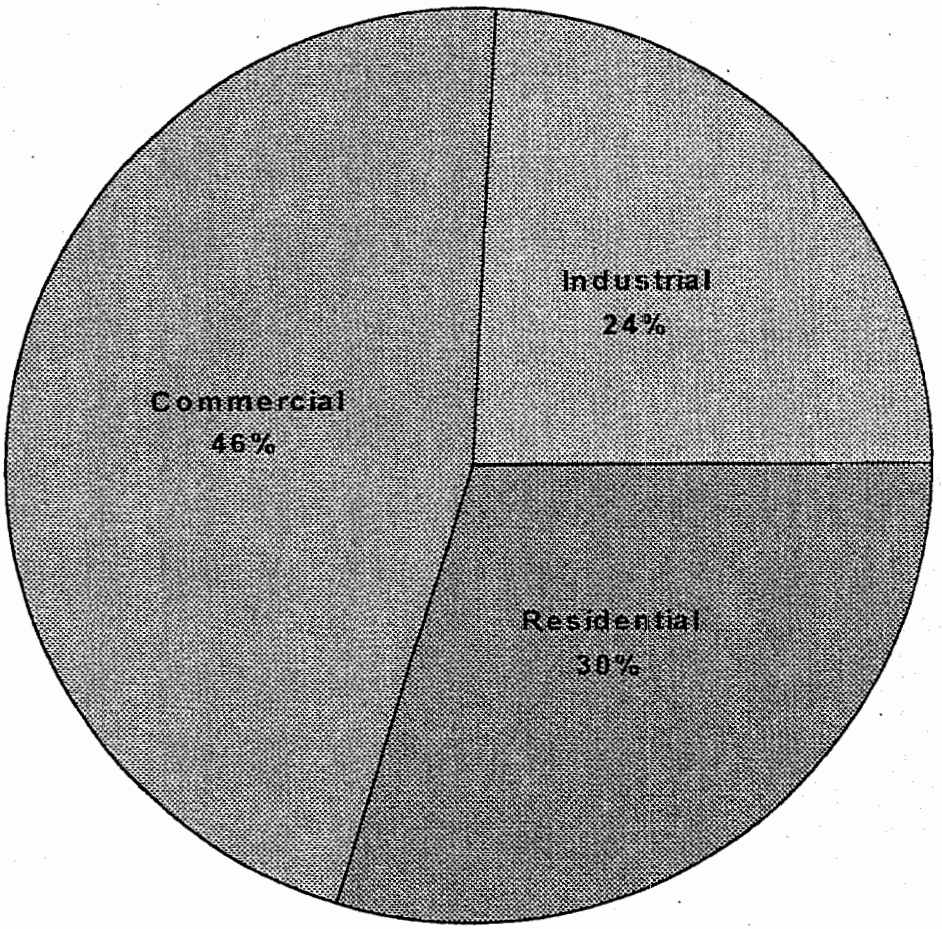


Both the Northwest Power Planning Council and City Light recognize that the full technical potential can not be realized due to market barriers, budget or institutional constraints, market saturation constraints, etc. Thus the technical potential is reduced by 15% (Northwest Power Planning Council estimate) or 30% (based on City Light's experience in delivering programs) and indicated in the bottom two lines in the graph below. Within the levelized regional cost range of 40-50 mills/kwh, roughly 180 to 260 aMW megawatts of conservation could be achieved over the twenty-year period. Since the focus of the 2000 Strategic Resources Assessment is the first 10 years of this twenty year period, these figures have been cut in half to estimate a cost-effective conservation potential of 90 to 130 aMW by 2011.

The customer sectors where the conservation is expected to be realized is summarized in the pie chart that follows:

Conservation Potential 2001-2020

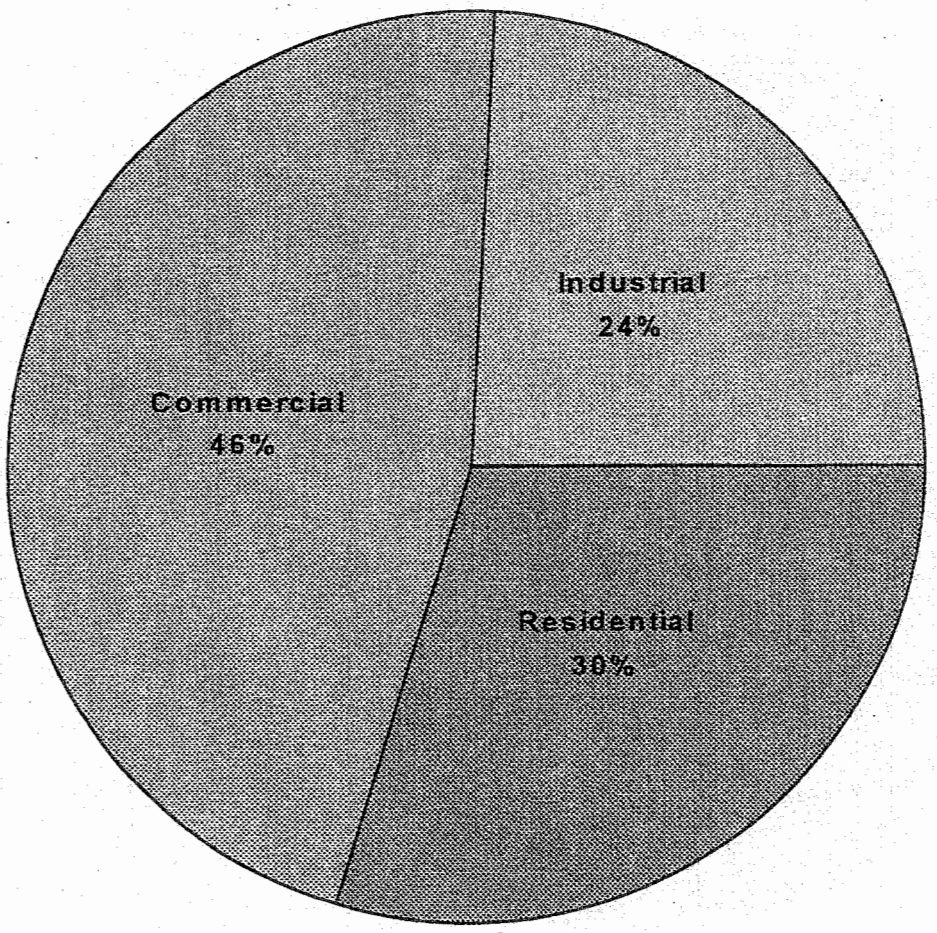
All sectors, below 50 mills per KWh



This specific conservation potential is estimated to be achieved from savings in the following end-uses, organized by customer class.

Conservation Potential 2001-2020

All sectors, below 50 mills per KWh



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Conservation Potential 2001-2020

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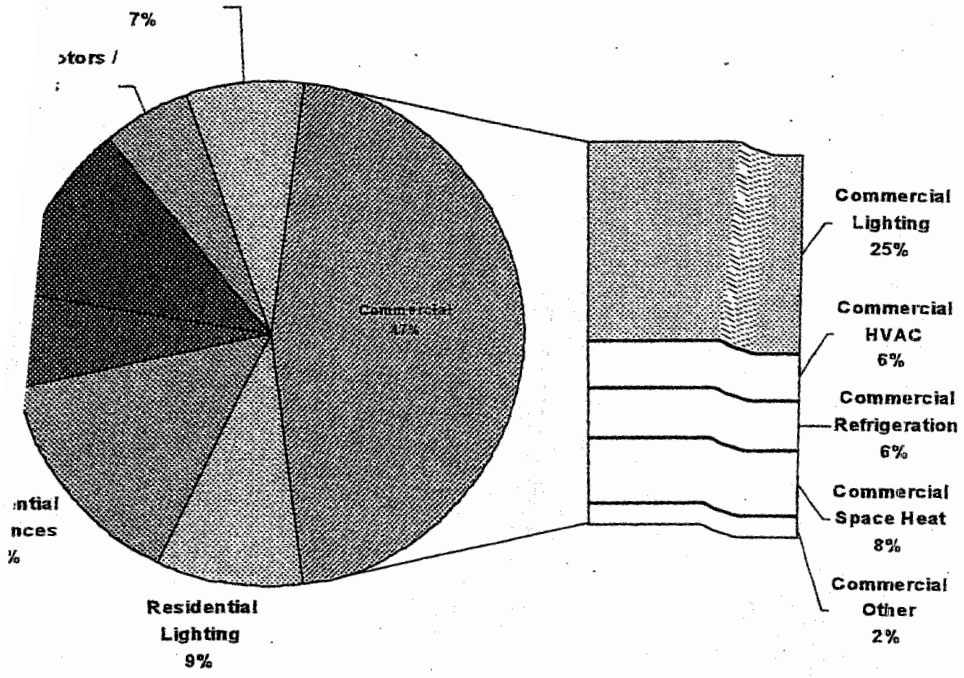
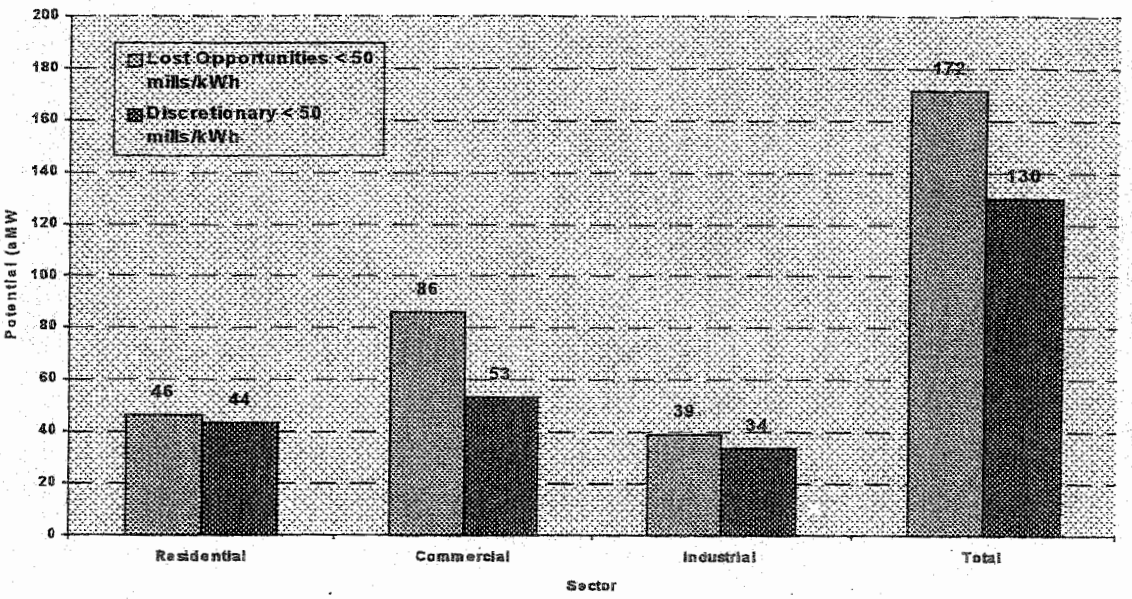


achievable conservation will only be cost-effective if it is implemented or captured
ildings are built, major appliances that fail are replaced, and key industrial process
occur in the industrial sector. These are "one-time opportunities" for cost-effective
, and in fact represent more than half of the conservation potential that has been

Technical Conservation Potential

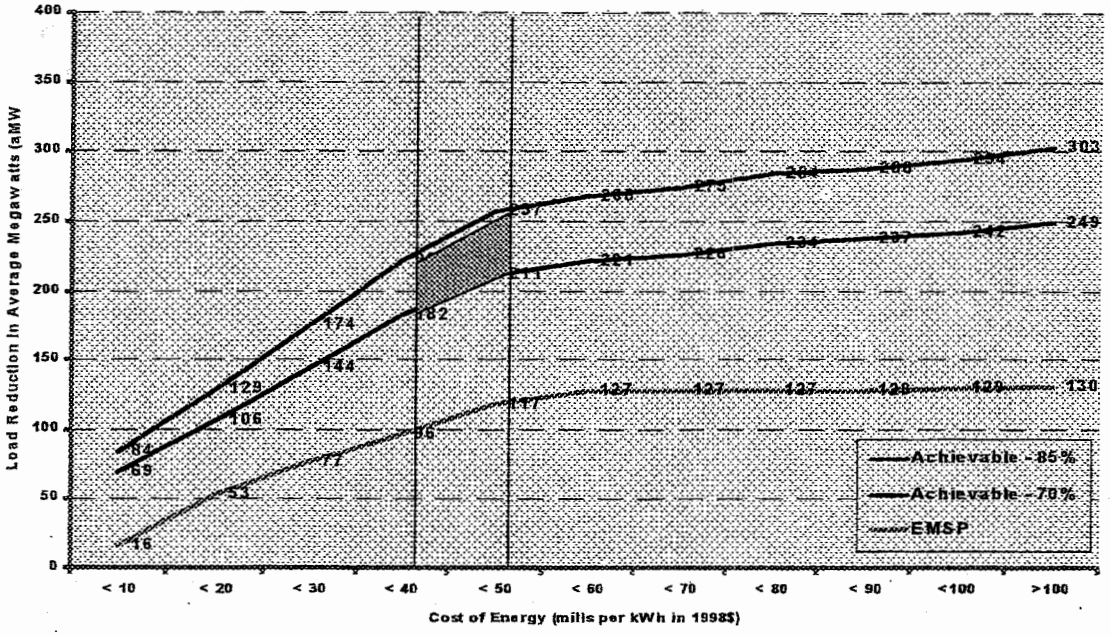
One Time (Lost) Opportunities vs. Discretionary



In summary, the achievable new conservation in City Light's service territory over the next 10-year period is roughly estimated to be 100 aMW (somewhere between 90 and 130 aMW). When this achievable potential is compared to the conservation savings City Light's current program effort could deliver (shown in the red line in the graph on the next page), it is roughly twice the current level of effort. Thus, the first recommendation of the 2000 Strategic Resource Assessment is to double the utility's current conservation effort from 6 aMW at present to 12 aMW over the next ten year period.

Achievable Conservation Potential

All Sectors by Service Area Levelized Cost

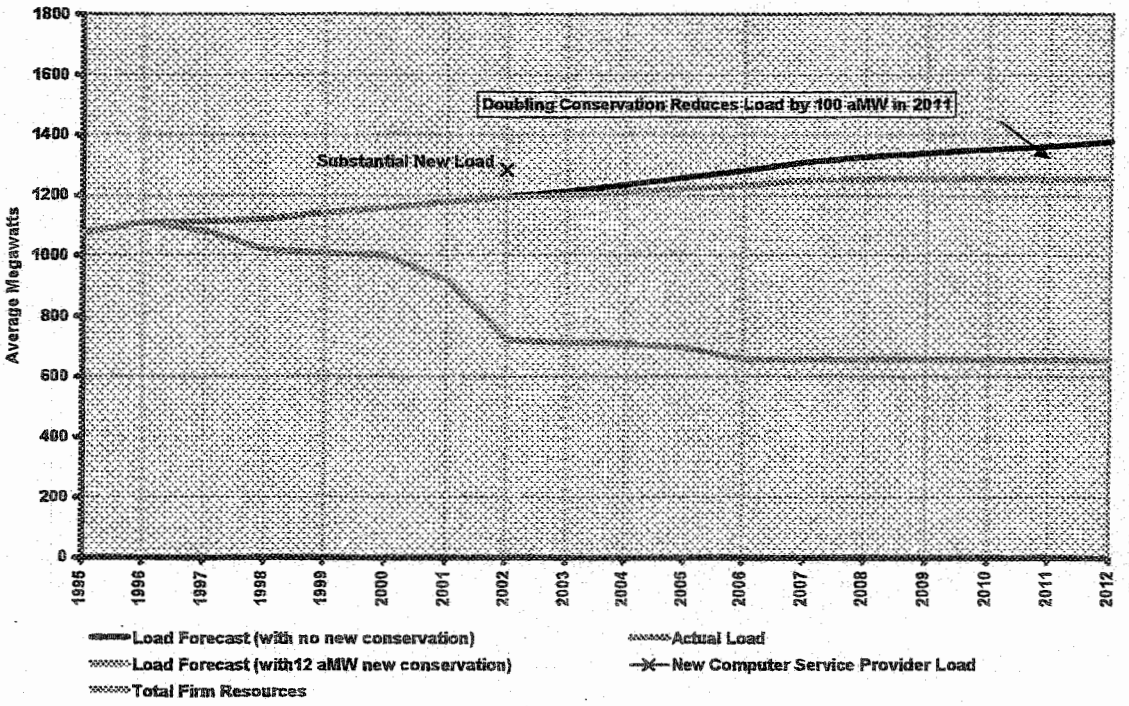


In order to accomplish this, City Light will review its current programs with an eye to doubling its currently ambitious goals as soon as possible. There is some evidence in the information developed by the Northwest Power Planning Council that we may be able to lower the delivery costs per kilowatt-hour of conservation to the region at the same time as City Light expands its goals. In cooperation with the Department of Construction and Land Use, City Light will actively explore enhancements to Seattle's Building Code. City Light is also looking into enhanced connection standards for customers, market transformation opportunities and the Bonneville Power Administration's interest in funding additional conservation resource acquisition.

If we double our conservation effort, City Light's base demand forecast for electricity shifts downward from the dark blue to the orange line indicated on the next graph. By the end of the ten-year period, the firm load minus firm resource gap would be reduced from 700 aMW to 600 aMW. (More information on the 2001-2021 Conservation Potential Assessment is included in Appendix 6.)

Doubling Conservation

Meet Earth Day Resolution Goals



City Light is reviewing also a variety of load management programs which can shift customer demand from expensive, peak periods to lower cost, off-peak periods in a way that makes sense to our customers and their needs. One method, coincident peak pricing, is being explored in cooperation with the Electric Power Research Institute (EPRI). This will be piloted soon. (A more thorough description of load management options is included in Appendix 7.)

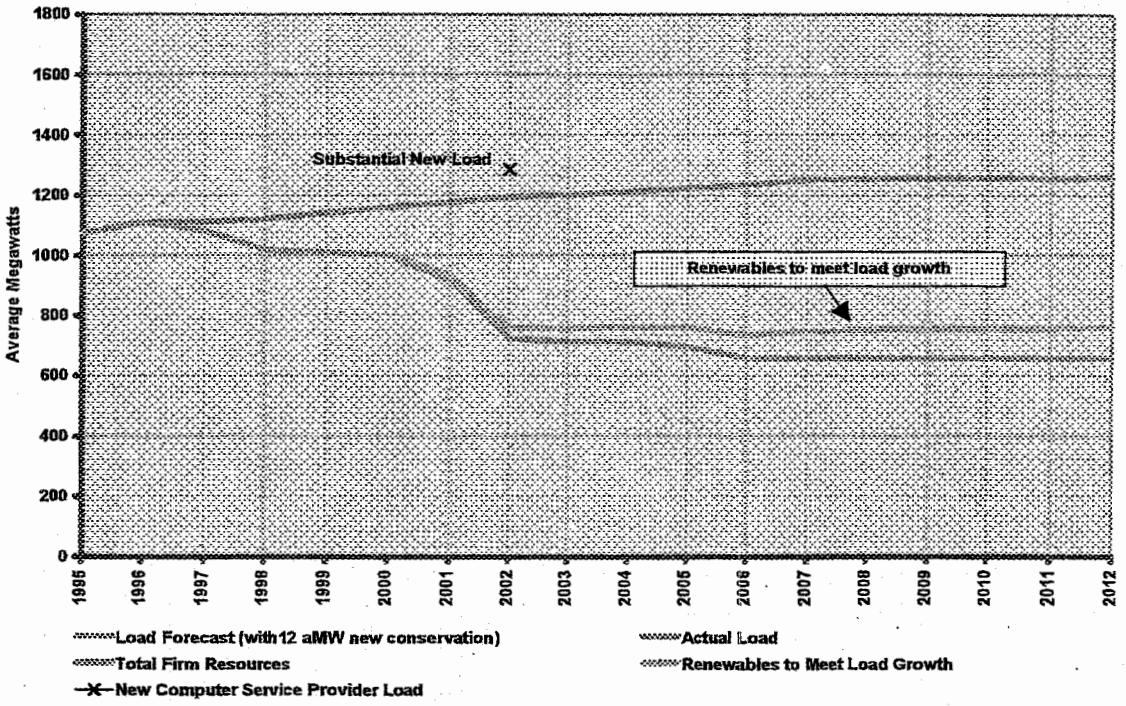
VIII. Renewable Resources: The Second Priority in the Earth Day Resolution

If City Light achieves 100 aMW of conservation over the next ten year period, it will meet roughly half the projected "base case" growth in customer demand. Thus to meet the policy direction of the Earth Day resolution, the utility will strive to acquire an additional 100 aMW of renewables over the same time frame.

As the first step in this effort a Request for Proposals for projects that produce energy from bio-mass, geothermal, hydroelectric, solar, landfill and wastewater treatment gas, or wind generation resources was issued. Sixty-two renewable resource proposals were received by City Light pursuant to the Request for Proposals: 23 wind, 17 hydro, 5 landfill gas, 1 waste gas, 9 solar, 2 geothermal, 4 bio-mass and 1 waste heat. We look forward to reviewing the proposals that emerge from the process and welcome the policy discussions with Council later this year as to the size and kinds of renewable portfolios they would like City Light to pursue actively at this point in time.

The following graph below demonstrates the size of the firm load minus resource deficit City Light continues to face even if all load growth is met with conservation and renewable resources. The size of this deficit is roughly 500 aMW in the year 2011.

Renewable Resources
Meet Earth Day Resolution Goals



City Light includes the costs of all its resources, including renewables and conservation, in its rate base. Some utilities have chosen to charge higher prices to customers who sign up for a "green power" rate. (An overview of some of the programs offered by other utilities is included in Appendix 9.)

IX. Contracting for Power with the Bonneville Power Administration

The Bonneville Power Administration (BPA), a part of the U.S. Department of Energy, is the power marketing agency responsible for selling electricity from the Federal Columbia River Power System. This includes power from the U.S. Army Corps of Engineers and the U.S. Department of Interior Bureau of Reclamation dams on the Columbia, Snake and other rivers, and the Energy Northwest (formerly the Washington Public Power Supply System) nuclear plant near Hanford. Under the 1980 Northwest Power Planning and Conservation Act, BPA sells that power at cost to meet the electricity requirements of public agencies in the region (like City Light). These public agencies by statute have first preference to purchase BPA power over private Investor-Owned Utilities and certain Direct Service Industries. Public utilities also have first preference on buying BPA's surplus power before it is offered to other buyers within the region, then lastly,

outside the region. BPA's surplus power is sold at market prices. In total, BPA sells about 40 percent of all the electricity used in the Northwest.

BPA revenues pay for the annual expenses of the federal system (including BPA's own expenses, as well as the related expenses of the Corps, the Bureau and fishery resource agencies), the annual expenses and debt service of Energy Northwest (pursuant to net billing agreements), and payments to the U.S. Treasury for debt service on the federal system (by law, the lowest priority BPA obligation). For most of its sixty-year history, the cost of federal power has been very low and a tremendous value to the region's economy. That value has been used to finance additions to the region's energy supply over the decades, first in the form of additional federal hydroelectric projects, then the WPPSS nuclear plants, then conservation programs. Several species of salmon have declined to the point BPA faces very large costs to restore those runs under the Endangered Species Act.

By the mid-1990's all those costs had driven BPA's rates up to about the market price of other sources of power, such as new natural gas turbines (which had become more efficient and were enjoying low gas prices). BPA began to lose business, as utilities found lower prices elsewhere. There was fear BPA revenues would not be sufficient to meet its Treasury payment obligations when its long-term contracts signed after the 1980 Act all expire in 2001. This might cause Congress to sell the federal system to parties outside the Northwest. The Governors of the four Northwest states appointed a Regional Review panel to save the benefits of the system for this region where electricity prices are about half the national average.

The Regional Review concluded that BPA still had long term value to the region and devised a process with its customers to tide it over tough times until it would again be below market due to cost-control and retiring the WPPSS debt in 2012. Meanwhile the recession in other parts of the West Coast has ended, driving the market price of electricity well above BPA rates again, just as City Light and the other BPA customers are negotiating new long term contracts to replace the expiring ones. The utilities and DSI's now want to return to BPA to purchase power at cost instead of buying on the wholesale market. The result has been BPA agreeing to buy about 1,300 aMW of additional electricity from the market (replacing power it sold earlier when it feared being under-subscribed). BPA will meld the market price of this augmentation power with its own low-cost federal power to meet its new subscription contracts which must be signed by the end of September 2000.

City Light's Current BPA Contract

To supplement its own generation, Seattle City Light has bought power from BPA for many decades, currently under a 1981 contract (amended in 1996) that will expire September 30, 2001. That contract now provides 195 aMW as a flat block, with some scheduling flexibility. The 1996 amendment reduced City Light's purchase of BPA power to this amount for several reasons. Much of the area outside the Seattle city limits had recently incorporated or annexed to other cities. Under Washington law, cities can form their own municipal electric utilities much easier than unincorporated areas, so there was a possibility that City Light would not serve these areas which equal about ten percent of its load. In addition, market prices had fallen to about the same level as BPA's prices, so it was prudent to rely on the flexibility of short term market purchases instead of making a five year commitment to as much BPA power as City Light was then entitled

to purchase. Since that time, those suburbs have signed franchise agreements through 2014 that include a promise not to form competing municipal utilities, so that load is once again a firm portion of City Light's obligation to serve. (Tukwila is served under an older franchise without this promise that runs to 2008.) And, as discussed earlier, market prices for electricity are now projected to be considerable higher than they were in earlier surplus situations.

City Light's New BPA Contract

At present, buying BPA power at cost is much less expensive than buying from the wholesale market. It is expected to continue to be below market in the future even with the uncertainties BPA faces in complying with the Endangered Species Act. Restoring salmon may require both very large expenditures by BPA, as well as reduce the amount of power generated from the federal system. BPA has just adopted rates based on the average cost of 18 fish recovery alternatives now being considered. But analysis by the Northwest Power Planning Council concludes that even with the highest cost scenario, BPA will be well below the market price of electricity. Also, the availability of electricity from the market is in serious doubt according to several studies. Therefore, City Light recommends buying as much electricity from BPA as possible.

By law, a public agency can purchase from BPA its "net requirement" of electricity: the utility's total load minus the amount produced by its own generating resources under critical water conditions. City Light is still negotiating with BPA the exact amount of its entitlement, which BPA will determine in the month of September. For the products attractive to City Light, the entitlement will be based on the forecasted October 2001-September 2002 load, minus the output under critical conditions of its current resources. The resource capability will be determined soon by the Northwest Power Pool consistent with the new Pacific Northwest Coordination Agreement. Recently, City Light and the other former owners sold one of those non-federal resources, the Centralia coal plant. Since this was a voluntary decision, BPA will not replace the lost power on a firm basis.. In City Light's case, this amounts to 81.5 aMW.

The load forecast is complicated by the recent application for service by a new computer service complex that could need as much as 105 aMW of energy, nearly a ten percent increase in City Light's load. Federal law creates a special customer class called "New Large Single Loads (NLSL)" that are not entitled to be served by BPA at the lowest cost-based rate but instead can only buy BPA power at the "New Resource (NR)" rate that was set earlier this year at BPA's forecast of market prices. BPA has announced that it will review its NLSL policy this fall after the new contracts are signed. If it is determined that a load must be served at the higher NR rate, a utility can withdraw it from the contract if the utility prefers to serve it from another source. All or a portion of this new computer complex may fall into this category, so City Light is including it now in its request to BPA, but may withdraw it after a determination is made. Except for this load, all new BPA contracts are a firm "take or pay" obligation to buy the contracted amount for the duration of the contract, unless the utility pays BPA an amount it would determine covers any risk to it if all or a portion of the power purchase is displaced.

While City Light has requested as much as 520 aMW of power from BPA (including this new load) to be served at the lowest rate, the actual amount may be less. For this analysis, City Light

has assumed 416 aMW, which does not include serving any of the new large load at the lowest BPA rate.

BPA Product Choices

BPA offers electricity in several product forms, three of which are most attractive to City Light: "Flat Block," "Shaped Block" and "Slice". These are described below. The other products are designed for utilities with little or no generation of their own.

a) Flat Block

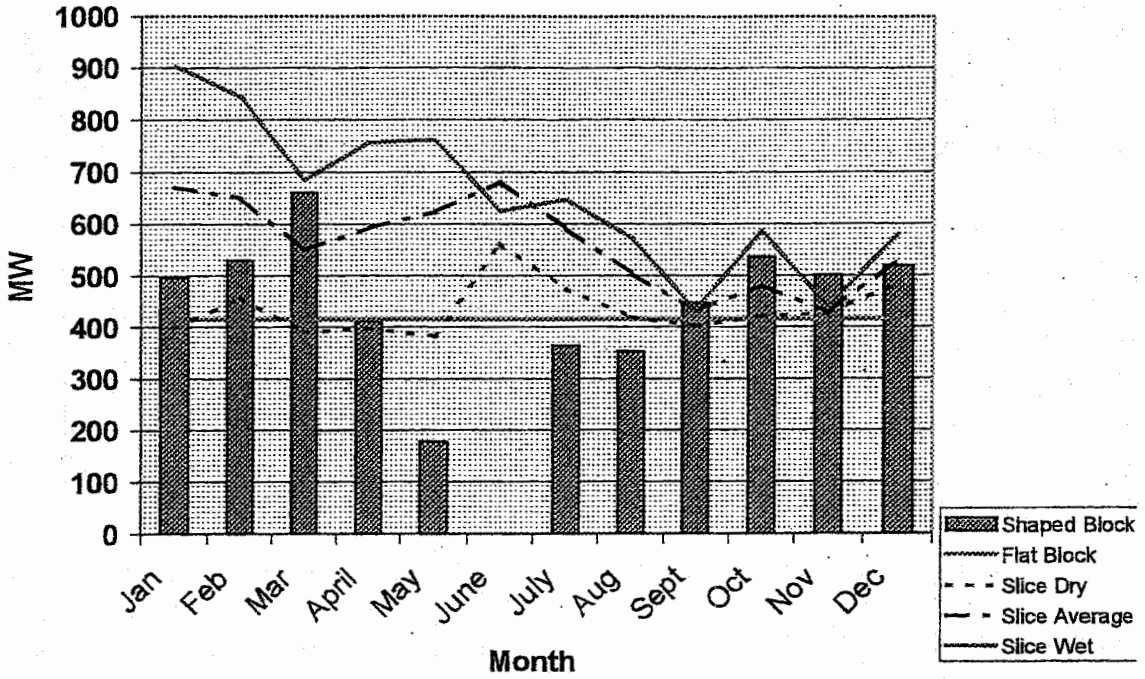
This product is similar to City Light's current purchase, the same amount in every hour of each year of the contract, based on the utility's load forecast for October 2001-September 2002 minus the annual output of its resources under critical water conditions. There are additional options to vary the amount of power during heavy load hours to match load shape or to meet unusually high loads. These options are not allowed if the block is purchased in combination with Slice. Flat Block may be purchased for three to ten years, but the rates are only set for the first five years. (The adopted rates for October 2001-September 2006 include a Cost Recovery Adjustment Clause (CRAC) of up to seven percent if BPA sustains large financial losses during the period).

Those rates differ month to month and include three components: a demand charge; a heavy load hour energy rate; and a light load hour energy rate. The annual amount of Flat Block can increase during the contract, but the increased amount must pay an extra charge that equals the difference between the BPA rates and its forecast earlier this year of market prices. In 2006, BPA will set the rates for the next five years.

b) Shaped Block

A variation on the Flat Block, this product provides for monthly differences in a utility's net requirement. The monthly amounts are based on the utility's month by month load forecast minus the critical output of its resources during each month. For City Light, this would mean little or no purchase in May and June (when its load is low and its own hydro resource output is high), but much larger purchases October through March than a flat block, as shown in the graph below. Like Flat Block, there are options to shape the amount during heavy load hours, but not if purchased in combination with Slice. With Slice, the same amount of Shaped Block power must be taken during all hours of the month.

BPA Product Choices
Monthly Shape All at 416 aMW



Shaped Block has the same duration options and rate commitments (including a CRAC) as the Flat Block. Although the same rates apply to Shaped Block as Flat Block, the annual average price may be higher for two reasons: 1) the shape might include more power during the months with higher rates; and 2) demand charges will total more than with a Flat Block. However, because this product is shaped to a utility's monthly net requirements, it minimizes the amount of power it must buy from the market, offsetting the higher BPA charges.

c) Slice

The "Slice of the System" is a new kind of product for BPA modeled after partnership agreements on other generating projects. Instead of a fixed price for a fixed quantity of power, the price and quantity of power under the Slice product can vary. For example, a utility could buy five percent of BPA's output in exchange for agreeing to pay five percent of its actual costs (excluding some specified costs). The amount of power would be higher in wet years, but might be less in dry years or if further fish requirements reduce the output of the federal dams below the current level under critical water conditions. Similarly, the cost would be higher if BPA overspends its budget and less if it under spends. At the end of each fiscal year, a Slice customer's payments that were based on the budgeted revenue requirement would be "trued up" to the actual expenses by paying an additional amount or receiving a credit during the following year. As detailed in the rate methodology and contracts, a Slice customer would agree to pay all costs of BPA's Power Business Line except for: 1) power purchases BPA makes when load exceeds its system output or to replace output reduced by new fish requirements; 2) most transmission; and 3) BPA's planned net revenues to cover its risks. In each of those cases, the Slice purchasers take on those

responsibilities themselves instead of paying BPA to do so. (Those costs are included in the rates for other BPA products, including the Blocks.)

The maximum amount of Slice a utility can buy is its annual net requirement (determined the same way described above for Flat Block) divided by 7,070 aMW (the forecasted federal system output under critical water adopted earlier this year before the new fish requirements now being considered). The 416 aMW City Light net requirement assumed in this analysis would equal a 5.88 percent Slice. City Light analyzed 50 years of water records to determine the range of output from the federal system under current fish flow requirements. Averaged over all 50 water conditions, the expected output of a 5.88 percent Slice would be 561 aMW, 145 aMW (35 percent) more than under critical water. While BPA assumed revenue from selling this additional non-firm, secondary energy in its rates for other products, Slice does not get such a revenue credit. Instead the Slice purchaser actually gets this extra energy to use or sell, depending on its needs day to day. Because the seasonal shape of the Slice energy is based on the river flows, a Slice purchaser would have to buy additional energy when its load is higher than the system output, and sell when it output exceeds its needs. Depending both on the water conditions and market prices of these purchases and sales, that might be a larger or smaller revenue credit than assumed in other BPA rates.

Thus, the actual cost per MWh of Slice can range from much more than the Block products (if costs are high, output is low and market prices are low) to much less (if costs are low, output is high and market prices are high). Historically, there has been a relationship between market prices in the Northwest and water conditions (i.e. lower prices in wet years when there is more supply, and higher prices in dry years when there is less supply). This analysis looked at market prices and City Light's need to buy or sell energy under 50 different water conditions. To analyze the cost and output reduction exposure of Slice, City Light used the highest cost fish alternative (paying to remove the dams on the Snake River, drawing down John Day Dam, meeting Clean Water Act temperature requirements, and replacing the lost output).

There are other potential costs and risks not quantifiable for this analysis. As a new undertaking, there will be a learning curve for Slice customers and adjustments to current practices that will cause some inefficiencies. In addition to the major risks described above (water conditions, fish requirements, market prices, and budget overruns) there may be unforeseen problems in achieving the full value predicted in the analysis. On the other hand, there are capabilities and opportunities with Slice that are not included in the analysis such as shaping the energy output during the heavy load hours or selling some unused Slice capabilities to third parties.

d) Slice and Block Combined

Because it is a new undertaking, BPA has announced it will limit sales of Slice to a total of 2,000 aMW, about half of the interest expressed by utilities. Thus, while the analysis includes an all-Slice option, in fact City Light will probably only be able to buy at most about half of its BPA entitlement as Slice. The remainder can be either Flat Block or Shaped Block, but Shaped Block fits City Light's net requirement better and has a slightly better net present value than Flat Block. Therefore, the analysis of a mixed 50/50 BPA purchase is half Slice/half Shaped Block.

BPA is requiring ten-year contracts for Slice. Even though a Block-only contract could have been three to ten years, the combined contract also must be for ten years. The rates for the second five year's of the Block portion will not be set until 2006. However, in order to get the "lowest cost-based rate" guarantee for the Block portion for the second five years, City Light must commit to buy the Block portion for the whole ten year term. On the other hand, there is no rate advantage to committing now to an increase in that Block for the second five years.

e) Net Requirements Increase in 2006

With either Slice or Block, the utility must meet its load growth or resource loss from October 2002 through September 2006 from other sources like conservation, renewable resources, output from a combustion turbine or the wholesale market. The first opportunity to increase its BPA purchase at cost will be for October 2006 through September 2011. Currently City Light predicts its net entitlement could increase by 139 aMW in 2006 due to a combination of resource loss and load growth, but that amount could be reduced by additional conservation efforts or acquisition of additional generating resources. This analysis assumes City Light places an additional 139 aMW net requirement on BPA in the form of additional Shaped Block at the lowest cost-based rate beginning in October 2006 on equivalent terms as BPA is offering for 2001-06.

BPA Product Comparison Summary			
Characteristic	**Flat Block**	**Shaped Block**	**Slice**
Annual Entitlement (Still under negotiation: 2001-02 Forecasted load minus 2001-02 SCL resources at critical	416 aMW	Same	Same, but could be less if year is drier than critical water or federal generation is reduced (e.g. because of equipment failures or additional fish requirements)
Additional Energy Above Entitlement	None	None	That percentage of any output above critical (e.g. 563 aMW total with average water)
Monthly Shape	Same amount every month	Equal to monthly load minus monthly SCL resources at critical water	Matches federal system critical water output (seasonal river flows)
January 16 Hour Peaking (aMW)	416	496	890
January Peak Hour (MW)	416	496	984
Price	Fixed monthly HLH/LLH prices with demand charge	Same, but annual average cost differs from flat due to varying monthly quantities and demand levels	$1,419,430 per percent per month, plus or minus that percentage of budget overruns or under-runs
Secondary Revenues from Federal System	Prices include credit based on average water and BPA's market price forecast	Same	None assumed in price, purchaser must earn
Major Risks	• Up to 7% surcharge if PBL accumulates $250-350 million of losses • Market price risk buying and selling to match with monthly needs	• Up to 7% surcharge if PBL accumulates $250-350 million of losses	• Water risk • Market price risk buying and selling to match with monthly needs, and selling Federal secondary • Budget overruns • Losing more capability to fish requirements
Length of Purchase	3-10 years, prices only known for first 5, than "lowest cost-based rate"	Same	10 years

Financial Analysis of Product Choices

The next chart displays the ten-year net present value (in millions of dollars) of City Light purchasing power from BPA in lieu of purchasing from the market. The three products were evaluated separately under a variety of electricity market price forecasts and cost/output scenarios from the BPA system. The results of those analyses are summarized below.

BPA Products Save over Market
10 year net present value ($million) excluding transmission

	100 % Slice	100% Flat Block	100% Shaped Block	50/50 Slice & Shaped Block
Price Scenario 1				
Base Cost	837.1	687.6	699.5	768.3
High Cost	721.6	636.7	648.3	684.9
Price Scenario 2				
Base Cost	708.0	600.8	626.5	667.3
High Cost	592.3	550.1	574.3	583.3
Price Scenario 3				
Base Cost	345.0	321.0	341.7	343.3
High Cost	215.0	264.0	282.7	248.9

The 50/50 Slice/Shaped Block combination was analyzed in combination with a broader resource portfolio. Because Slice can be shaped within heavy-load hours to the most valuable times, it requires more transmission than a block which is available only flat within the month (or year). This would tend to narrow the net present value among the BPA products, but those values do not reflect shaping within the heavy-load hours. Because the price forecasts all rise over the next five years then level off, as a sensitivity test, City Light also calculated the net present values if prices remained flat in nominal dollars starting in 2002. Even with this conservative assumption, all BPA products are tremendous buys for City Light ratepayers in relation to the market. (An overview of the portfolio analysis is included in Appendix 10.)

BPA products, Slice appears to be the best "fit" for City Light. It builds on the utility's existing hydro resources and expertise at buying and selling to match hydro output to load. The advance purchase of non-firm energy will help replace the energy lost from selling City Light's share of the Centralia coal plant. Next best is Shaped Block which is shaped to meet City Light's month-by-month resource deficit (except for replacing the Centralia energy). Flat Block fits least well, providing less energy during the months City Light purchases and more in the months it is already in the market selling surplus.

Slice provides a ten-year cost-based formula for sharing the risks and benefits of the federal system. The risks include low water years or market prices, just as the benefits include high prices and extra output during wet years at no additional charge. Slice requires additional transmission

to realize its full value, and transmission costs are rising. Non-power constraints such as salmon recovery requirements may reduce the capability and increase the costs of Slice, but eventually those impacts would be reflected in other BPA products as well.

A final consideration may be that Slice creates more of a sense of partnership with BPA in this valuable resource for the Northwest and tests a likely vehicle for regionalizing the system if the federal government ever sells it. The concept of Slice arose when BPA feared its rates would be above market due to fish costs and falling natural gas prices. If BPA could not make its payments to the U.S. Treasury, there would be great pressure in Congress to sell the system to the highest bidder and the region's economy might suffer irreparable harm. BPA still looks financially very healthy, but this position has been eroding recently due to high market prices. Slice is designed as a partnership through good times and bad to recognize both the value of the system to the Northwest and the region's responsibilities to bear the costs of the system, including fish and wildlife restoration.

The table that follows displays the financial exposure of the BPA products under a range of 50 water conditions and associated price levels without transmission costs.

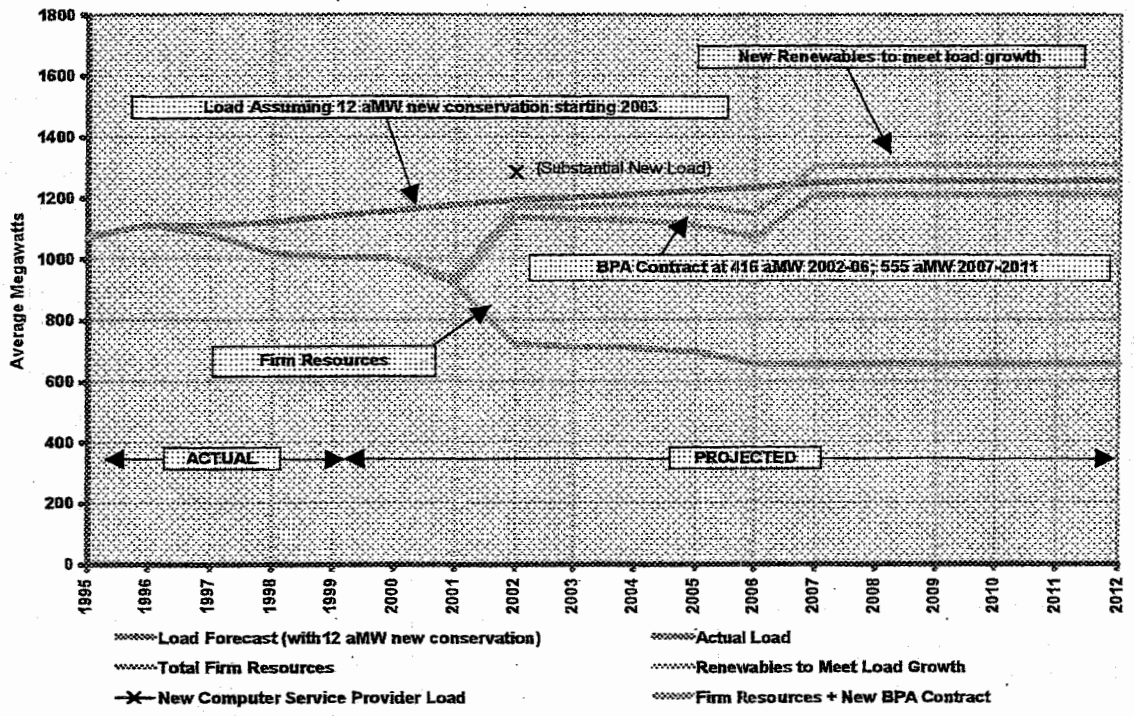
Financial Exposure with Current Rate-setting Policies
City Light's Net Non-Firm Revenues by Water Condition

	Low Year	Average	High Year	Average minus Low
Slice	($40)	$50	$119	$90
50/50 Slice/Shaped	($41)	$34	$94	$75
Shaped	($46)	$18	$68	$64
Flat	($50)	$13	$64	$63

In the worst year, all Slice or half Slice/half Block perform better than either Block by itself. In the highest year, Slice performs much better than either Block because of the large amount of non-firm energy sales. Averaged over all 50 water conditions, the expected value of Slice is much higher than the Blocks. Expected value is currently the basis for setting City Light rates, but the swing between expected to lowest must also be considered. The very positive results of Slice in good years increases this swing so much, that it would cause City Light to rethink strategies to handle this variability. This review of financial and rate-setting policies will be transmitted to the Council next year.

Once a full entitlement contract with the BPA is included in City Light resource portfolio, the firm load minus resource gap is reduced significantly in the near term. It is potentially eliminated in the second five years of the 10-year BPA contract if there is an expansion of the entitlement as discussed earlier.

Full BPA Entitlement Contract



X. The Role of a Combustion Turbine in the City Light Portfolio

As the previous discussion indicates, the utility's firm load/resource deficit narrows considerably during the 2001 to 2006 timeframe and may in fact disappear in the latter part of the period if all the conservation, renewable and BPA resources are brought into our resource portfolio as expected. This result, however, reflects average annual conditions and does not include any resource hedging for greater than expected load growth or new large customers.

The analysis of City Light's resource needs on the basis of annual firm requirements masks the considerable variation in customer demand in various times of day/week/ year and across a variety of weather conditions. In addition, in good water years City Light is a net seller of power in the market, but it is a net buyer in poor water years. Regardless of water conditions, the utility is usually deficit in September, while it has surplus energy in June. Combustion turbines, which have relatively low capital costs and relatively high operating costs, can be dispatched during those periods of energy deficit to meet customer demand. They can be left unused when cheaper hydro resources are available because they have relatively low capital costs. Since combustion turbines can be brought on line rather quickly, they also provide hedging capability against unexpected energy market price increases. Finally, a combustion turbine would also provide a hedge against erosion of the output of existing resources as environmental investments proceed over the next decade.

City Light has reviewed several ways the output of a combustion turbine might be used as part of the broader resource portfolio for the past twenty years. In the 1980s the Department analyzed

the potential acquisition of a combustion turbine to replace the Lake Union Steam Plant, which was decommissioned in 1988 because its fuel supply was tainted with PCBs. The major function of the Lake Union Steam Plant at that time was to provide overdraft backup for the Ross Reservoir. The Department signed an overdraft contract with Washington Water Power and did not acquire a combustion turbine. Successive reviews recommended the purchase of a combustion turbine to complement the utility's hydro resources. Plans for potential acquisitions were dropped because of reasons ranging from disagreement about gas price projections to financial limitations of the company proposing the development. A complete study of various combustion turbine and site options was done again over the period 1995-1997 and reports were published on Power Options (1995), Draft Strategic Resource Assessment (1996), Environmental Impact Statement (1996) and Final Strategic Resource Assessment (1997). The Duwamish site was identified as the preferred option for siting a combustion turbine. The time, however, was not favorable for building new power plants. There was an energy surplus in the western region; prices were at historically low levels and were anticipated to remain low for several years. The restructuring of the electricity industry caused concerns about the potential burden of stranded costs if customers chose other power providers and market prices remained low. The Draft and the Final Strategic Resource Assessments therefore recommended to postpone the acquisition of a combustion turbine but to maintain the site available for potential future use.

Market conditions have changed dramatically in the past few years and extraordinarily in the past few months. The energy surplus has practically disappeared despite current normal water conditions in the Pacific Northwest. Demand has increased much faster than anticipated while investments in new power plant and transmission facilities have lagged behind expectations. In addition, market prices have become much more volatile causing wide swings in market power costs. These conditions have made combustion turbines attractive resource options.

For these reasons, the 2000 Strategic Resource Assessment includes a review of the addition of 100 MW of turbine capacity and energy in City Light's portfolio. This dispatchable resource would significantly enhance the reliability of City Light's system and hedge against greater than average load growth. It would also reduce the costs of meeting customer demand for electricity over the ten-year period and current market prices would make such an investment economic immediately.

While City Light continues to review various options to acquire the power from a combustion turbine, at this time there is a backlog in combustion turbine equipment orders, so building a new plant would cause the production on-line date to be delayed to at least 2004. The Strategic Resource Assessment analyzes the option of acquiring generation from a combustion turbine through a contract with an outside provider that would supply power starting in 2001. The forecast of contract expense is strongly influenced by the projected cost of natural gas. The Strategic Resource Assessment forecast of natural gas consistent with the projection of electricity prices assumes some decline in constant dollars over 2000-02 and annual rates of escalation averaging 1.6% (in constant dollars) over the period 2003-2011. In later years, annual average increases are projected at about 0.4% in constant dollars. This forecast is based on prices at Henry Hub plus an adjustment to yield the prices at the production site. The contract terms assume that the combustion turbine from which the Department receives power is located on existing transmission lines and that City Light would not need to purchase additional transmission

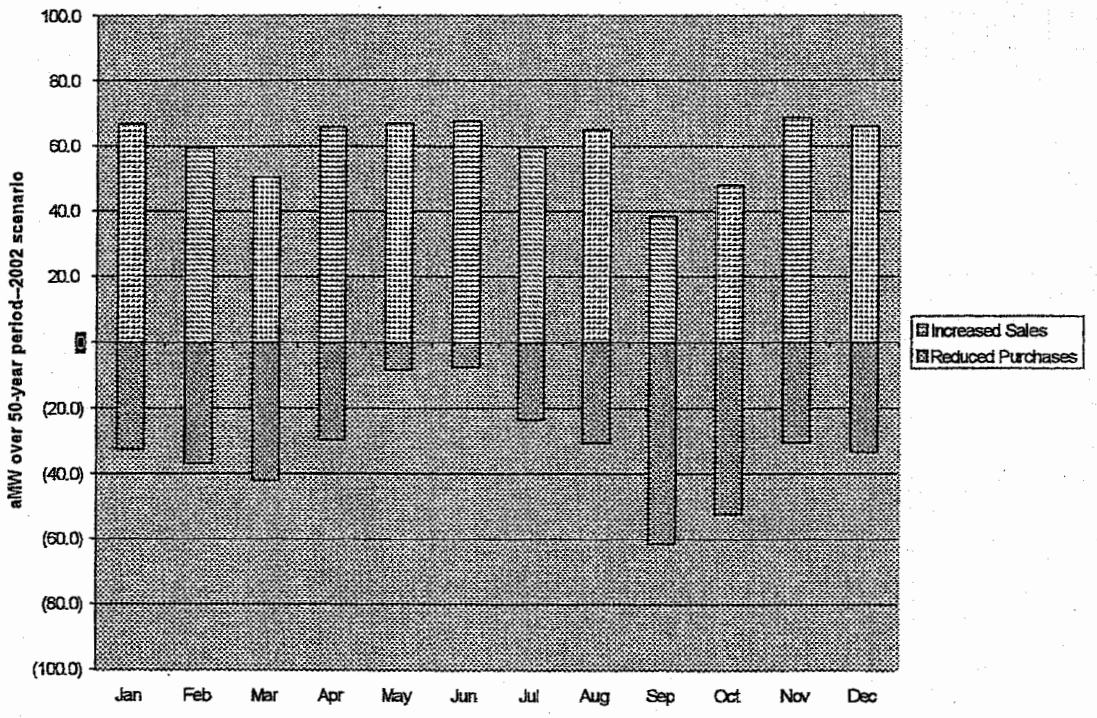
to bring that power to its service territory. In fact, the expansion of the wheeling contract with the BPA assumed in the Strategic Resource Assessment would provide the capacity required to wheel into the service territory either market purchases or contracted purchases from a combustion turbine.

In the portfolio analysis City Light completed, the combustion turbine was the last resource added after all the others were brought into the system but it was assumed to operate whenever the cost to run the turbine was less than the market price of electricity. Thus, the output could be used to either meet City Light load or to market to other utilities

The chart below shows how the output of a 100 MW combustion turbine would be used to meet City Light load in comparison to increase sales. It represents the average use of such a turbine over all water conditions of record. The vertical size of each monthly bar in the graph is roughly the size of the 100 MW combustion turbine. The size of the bar below the line is, on average, the use of the turbine to meet City Light load. Similarly, the size of the bar above the line is the use of the turbine to increase market sales.

Combustion Turbine

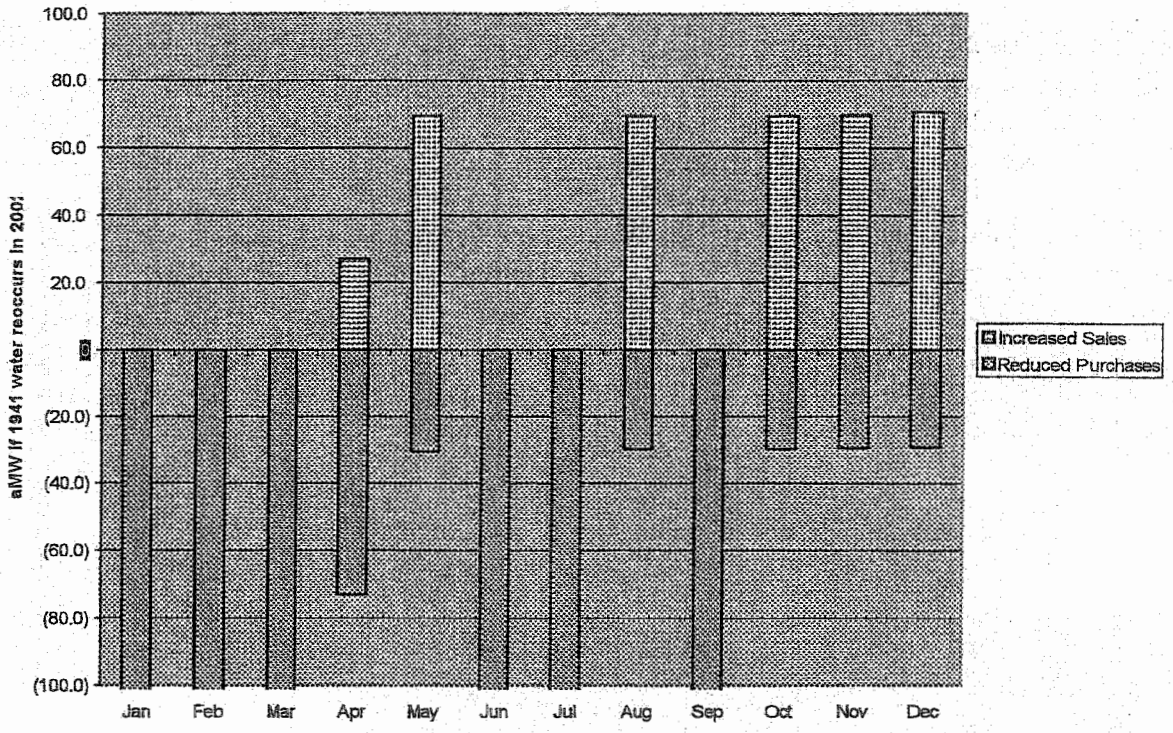
Serving load vs. marketing: all water conditions average



The next two graphs demonstrate the range of use of a combustion turbine in extremely dry and extremely wet water conditions. The first graph is similar to the one above but demonstrates that the full output of a combustion turbine would be needed just to meet City Light customer loads during six of the twelve months of the year in very dry water conditions. (Although the months in the graph are shown in calendar or chronological order, they do in fact reflect water years rather than calendar years.)

Combustion Turbine

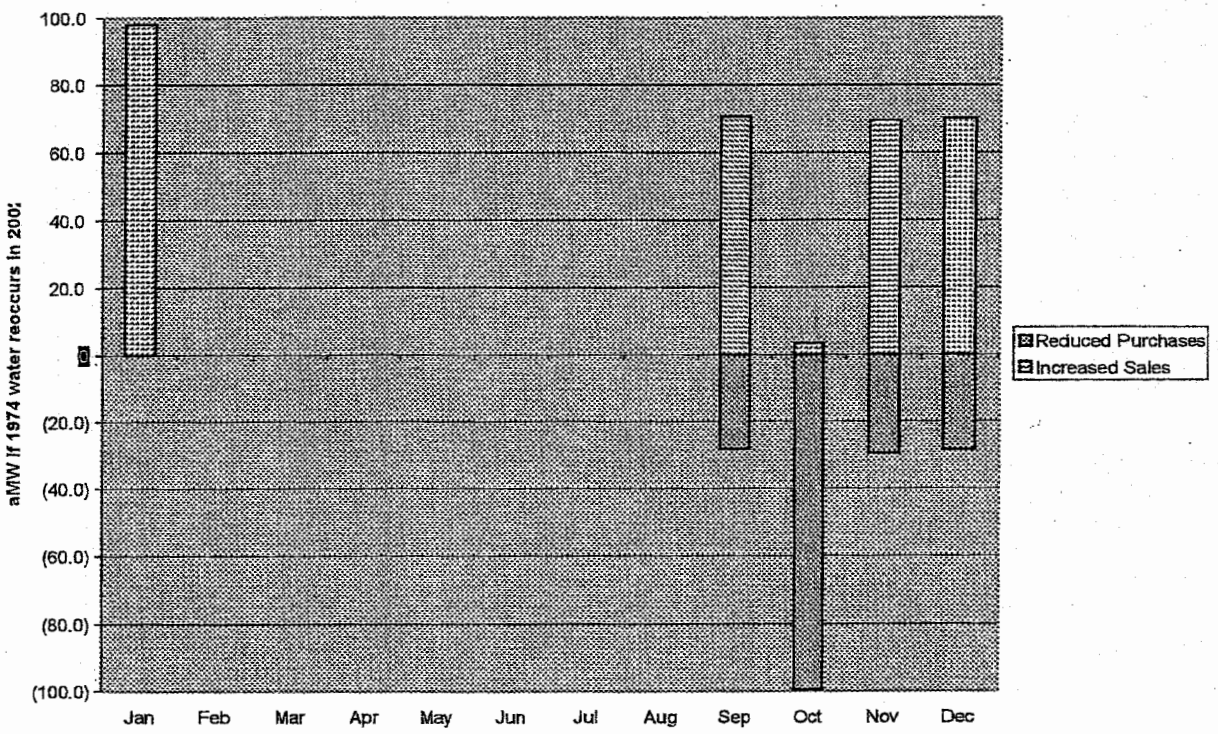
Serving load vs. marketing: Dry year: 1941 water conditions



Alternatively, the wettest year of water record was 1974. Although 1974 was the wettest water year, it was very dry in October. Thus, even in that year, City Light would have needed a significant amount from a combustion turbine in the months of September, October, November and December. This can be seen in the following graph.

Combustion Turbine

Serving load vs. marketing: Wet year: 1974 water conditions



In conclusion, City Light recommends that it contract for the output of a combustion turbine and that the greenhouse gas impacts of that purchase be mitigated consistent with City Council policy. This resource would provide a hedge again extraordinary load growth, daily/weekly and monthly peaks, market price volatility, and erosion of resource output over time. The utility has solicited proposals from and is in discussion with developers and will be evaluating options this fall.

XI. Rate Impacts of Recommended Strategic Resource Portfolio

The rate impacts of the recommended portfolio of resources is estimated in comparison to those that would exist should we continue to purchase only 195 aMW from the BPA and continue existing conservation programs at their current level of 6 aMW annually. In addition, we show those rates in relation to the projected rate of inflation.

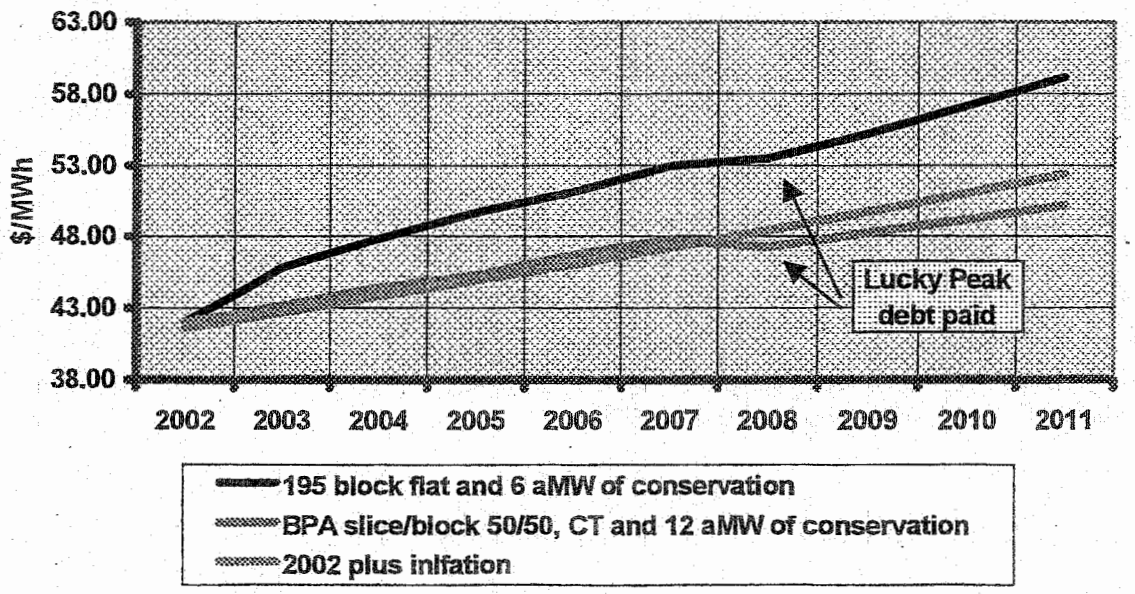
The projected rates assume continuation of the existing financial policies:

- On average, over all water years, meet 1.8 debt service coverage target.

- On average, provide about 20% of funds needed for the Capital Improvement Program from operating revenues, not borrowing.

The projection of City Light average customer rates for the next ten years is shown below given the existing financial policies and given the long-term price forecasts which, at least in the near-term for both electricity and gas, are considerably below the prices City Light is experiencing in the market today. Market prices are projected to increase at average annual rates averaging 9.8% over 2002-2005 (in nominal dollars), with price growth slowing down to annual average rates of the 5% over 2006-07 and 3% after 2008. At this point, as a result of the cumulative effect of additions to the supply of energy in the West Coast, market prices are anticipated to remain relatively flat in constant dollars. The effort to double energy conservation savings is assumed to increase net conservation program costs by the $6 million a year. The purchase of renewable resources is projected to add about $2 to $3 million a year to the cost of purchased power through 2005. This margin is assumed to increase to about $8 million by 2011 as purchases of renewable resources increase from 13 aMW to about 100 aMW and the difference between the cost of renewable resources and market prices declines from $28/MWh in 2002 to $9/MWh in 2011. No explicit greenhouse gas mitigation costs have been included at this time pending Council decisions on the City Light resource portfolio and policy decisions on the type of mitigation offsets to purchase.

Rate Impacts of Resource Strategy under Current Policies



XII. Impact of Resource Portfolio on the Variability of City Light's Financial Results

The cost of power is a major source of variability in City Light's financial results. City Light's own hydroelectric generation system supports low customer rates but the variability in water conditions causes actual financial results to differ significantly from planned levels. City Light sets rates assuming that the amount of power generated by its hydro facilities will be equal to the average amount that would be generated over the fifty water conditions experienced from 1929 through 1978. Actual hydro generation can vary significantly from the historical average. When water availability is low, City Light either must purchase more power in the wholesale market or has less power available for sale in the wholesale market than had been assumed in setting rates. In either case, City Light's financial results are adversely affected. Conversely, financial results are better than expected when water conditions are better than average.

The variability in power costs also depends on the extent of the reliance on wholesale energy markets. This potential variability is greater the larger the share of wholesale market purchases in the resource portfolio because the expense for these purchases depends on market conditions, which can vary significantly from those anticipated at the time rates are set. The Department's reliance on market purchases has increased as a result of the August 1996 amendment to the BPA contract (limiting BPA purchases to 195 aMW) and the May 2000 sale of the Centralia plant. Variability has also increased as a result of higher volatility in market prices.

While the acquisition of a Slice of BPA's system will reduce City Light's dependence on market purchases, it will not significantly reduce its exposure to power cost variability. BPA power is largely hydro-based and subject to the same variability as City Light's hydro resources. In addition, the slice product entitles City Light to a share of both BPA's revenues and costs and the latter are also subject to significant uncertainty.

These sources of variability affect City Light's finances in two ways. First, they impact the key measures of annual financial performance: debt service coverage and net income. Second, cash flow is also affected. It is important to distinguish between the impact on cash flow and the impact on financial results, because policies that deal with one of these effects may not address the other.

City Light has traditionally dealt with financial variability through its financial policies. In general terms, City Light's financial policies require rates to be set at levels that produce revenues that exceed operating costs by a certain margin. Unless the shortfall in hydro generation or the impact of market price changes is especially severe, City Light will cover its operating costs and pay the debt service on its bonds, but it will not realize its planned income and cash levels and it will miss its targeted debt service coverage if there is not a near-term rate adjustment. A cash shortfall will also cause the utility to increase debt issuance above planned levels, which leads to higher rates in future years. Conversely, when wholesale power costs are lower than planned the utility can reduce its planned debt issues, which reduces rates in future years as a result of lower debt service payments. Thus the impact of variations in financial results is spread over several years.

Prior to 1990 the Department had a financial policy that specifically dealt with the down side of the variability of water conditions; it required an 80% probability that net income would be

positive. After a 1989 financial policy review process that sought to balance the goals of financial stability and low rates, only one of the three existing guidelines remained, the targeted debt service coverage ratio, which was lowered from 2.0 to 1.8. At the time the conclusion was that the existing policies required an unnecessarily high level of rates and that the new, less conservative guideline would be sufficient to provide adequate protection against financial variability.

City Light's environment has changed since 1990. The utility has become more dependent on wholesale market purchases and energy markets have become less stable. Variability has increased significantly and the current financial policy may no longer be sufficient to prevent wide swings in the utility's financial results. The Department therefore plans to assess whether existing policies are adequate to protect its annual financial results from this increased variability. Several alternative approaches to deal with financial variability will be considered:

- Strengthen the traditional financial guidelines, such as increasing debt service coverage target, setting a target for revenue financing of the capital program, or establishing a guideline that specifically addresses the variability of net revenue from market transactions. Any one of these options would affect both financial results and cash availability and would cause customer rates to be higher in the near and mid term and lower over the long run.

- Plan to carry higher cash balances so that sufficient cash will be available to meet obligations. This alternative would address the cash flow effects of variability but would not mitigate the impact on financial results. It would have a relatively small impact on rates.

- Pay a third party to assume the risk of power cost variability. In return for an annual premium, the third party would agree to make payments to the Department when the financial impacts of hydro variability and market price fluctuations exceeded a certain predetermined limit. This option would impact cash and financial results.

- Set a balancing mechanism to adjust rates to compensate for the effects of actual water conditions and market prices. This approach would be similar to the fuel adjustment clauses which many investor-owned utilities are authorized to implement.

- Sell more power to customers at rates that fluctuate with market prices to reflect at least part of the variability of power costs.

- Sell power to customers at retail rates which more closely reflect market rates and return the dividends of public power to ratepayers in a manner other than the average cost rates we set at present.

XIII. Key Work Program Items

There is a considerable amount of additional work to complete to implement the recommendations embodied in the 2000 Strategic Resource Assessment. In particular:

- City Light's financial and rate setting policies must be reviewed to ensure they are appropriate for the unregulated electricity markets we face and the resource portfolio we own and purchase.

- A thorough work program is being scoped to develop well-thought out strategies to double the utility's conservation efforts in a timely and cost-effective manner.

- Both the 62 renewable resources proposed by 30 different firms and the combustion turbine proposals City Light received at the end of August will be evaluated this fall.

- City Light is on the forefront in developing greenhouse gas mitigation policies and strategies for implementation. This is a significant work program that will result in recommendations to the City Council in the first half of 2001.

- City Light must continue to maintain the tremendous value embodied in our existing generation assets.